

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listing of claims in the application.

Listing of Claims:

1 (currently amended). A light emitting device using an LED chip, comprising:

a mounting substrate having a recess and having a wiring portion ~~for supplying that~~
supplies electric power to the LED chip, the LED chip being mounted on a bottom of the recess;
~~the LED chip mounted on a bottom of the recess;~~

a wavelength converting member ~~that is~~ disposed so as to cover the recess and an edge area around the recess and that is excited by light emitted from the LED chip to emit light of a wavelength different from an excitation wavelength; and

an emission control member provided at a light output side of the wavelength converting member so as to allow emission of light coming from an area of the wavelength converting member that corresponds to the recess and to prevent emission of light coming from an area of the wavelength converting member that corresponds to the edge area around the recess.

2 (currently amended). The light emitting device according to claim 1,

wherein the emission control member ~~[[is]]~~ comprises an optical member ~~that is~~ disposed at the light output side of the wavelength converting member and ~~[[has]]~~ having a light input portion facing the light output side of the wavelength converting member, ~~[[and]]~~ the light input portion of the optical member ~~[[has]]~~ having an end of substantially the same shape as the open end of the recess.

3 (currently amended). The light emitting device according to claim 1,

wherein the emission control member ~~[[is]]~~ comprises a light blocking frame member disposed on the light output side of the wavelength converting member at a location corresponding to the edge area around the recess, ~~[[and]]~~ the light blocking frame member ~~[[has]]~~ having an opening of substantially the same shape as the opening of the recess.

4 (currently amended). The light emitting device according to claim 3,

wherein the wavelength converting member ~~is made of~~ comprises a material with a high elasticity, ~~[[and]]~~ an outer edge area of the wavelength converting member ~~[[is]]~~ being compressed by the light blocking frame member pressed against the wavelength converting member.

5 (original). The light emitting device according to claim 1,

wherein the light output side of the wavelength converting member is convex.

6 (currently amended). The light emitting device according to claim 1,

wherein ~~[[the]]~~ a density of a wavelength converting material in the wavelength converting member increases toward ~~[[the]]~~ a center of the wavelength converting member.

7 (currently amended). The light emitting device according to claim 1,

wherein the emission control member ~~[[is]]~~ comprises a lens disposed over the mounting substrate to have an optical axis coinciding with an optical axis of the LED chip, and

wherein the device further comprises:

a wiring board having a wiring portion ~~that is~~ fixed to the mounting substrate ~~[[so as]]~~ to supply electric power to the LED chip; and

a lens holder ~~for positioning and fixing~~ that positions and fixes the lens on the wiring board,

wherein a portion of the lens holder ~~[[that is]]~~ fixed to the wiring board is located inside as compared with ~~[[the]]~~ an outer diameter of the lens.

8 (original). The light emitting device according to claim 7, wherein the lens holder is tapered toward the mounting substrate.

9 (currently amended). The light emitting device according to claim 7, wherein the lens ~~[[is]]~~ comprises a hybrid lens.

10 (currently amended). The light emitting device according to claim 7, wherein one of ~~either~~ a top face ~~[[or]]~~ and a side face of the mounting substrate is fitted to the lens holder.

11 (currently amended). The light emitting device according to claim 7, wherein the lens holder is engaged in one of ~~either~~ grooves ~~[[or]]~~ and through holes formed in the wiring board.

12 (currently amended). The light emitting device according to claim 11, wherein the mounting substrate and the lens are positioned and fixed on the wiring board via a same fixing

means fixer.

13 (currently amended). The light emitting device according to claim 12, further comprising:

a metal foil for soldering that is provided on an under surface of ~~[[the]]~~ a fixed portion of the lens holder;

a land that has substantially ~~[[the]]~~ a same shape as the fixed portion of the lens holder and that is formed on the wiring board;

a lead electrode provided on the mounting substrate to be connected to the wiring portion of the wiring board; and

a wiring land that has substantially ~~[[the]]~~ a same shape as the lead electrode and that is formed on the wiring portion of the wiring board,

wherein the metal foil and the land, and the lead electrode and the wiring land are connected to each other by soldering, respectively.

14 (currently amended). The light emitting device according to claim 12,

wherein a protrusion formed on the under surface of the lens holder is engaged in one of ~~a either the~~ through hole ~~[[or the]]~~ and a groove formed in the wiring board,

wherein a protrusion formed on an under surface of the mounting substrate is engaged in one of ~~either the~~ through hole ~~[[or]]~~ and the groove formed in the wiring board.

15 (currently amended). The light emitting device according to claim 1, further comprising:

a light extraction increasing portion provided on a light output side of the LED chip [[so as]] to increase efficiency of extraction of light from the LED chip by being combined with the LED chip; and

a sealing resin ~~filling~~ that fills the recess in the mounting substrate where the LED chip is mounted [[so as]] to seal the recess,

wherein a top of the light extraction increasing portion is located higher than a top of a wall of the recess.

16 (original). The light emitting device according to claim 15, wherein the mounting substrate has a second recess around the recess so that the resin can flow into the second recess.